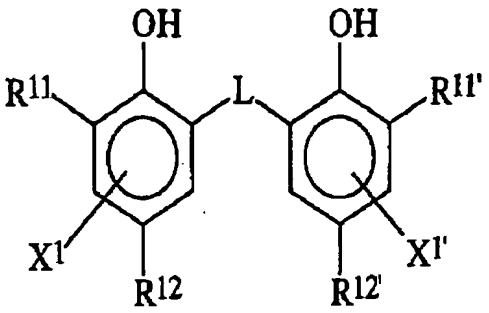
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.(currently amended) A ~~photothermographic material~~ black-and-white photothermographic material that forms a black-and-white image by a silver image, the black-and-white photothermographic material comprising, on one surface of a substrate, photosensitive silver halide grains having a core/shell structure, a non-photosensitive organic silver salt, a reducing agent and a binder, wherein said photosensitive silver halide grains include at least iridium and a metal selected from the group consisting of iron, copper, rhodium and ruthenium, and 90 % or more of a total iridium amount is contained in a core portion of the grain providing that, the core portion of the grain corresponds to 50 % of the total mol% of silver halide in the grain, and at least 50 % of a total amount of the ~~other~~ metal selected from the group consisting of iron, copper, rhodium and ruthenium is contained in the shell portion of the grain, wherein the reducing agent is a bisphenol compound represented by the following formula (R)



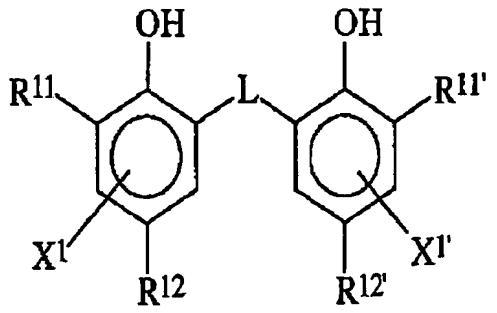
formula (R)

wherein, in formula (R), R^{11} and $R^{11'}$ each independently represents an alkyl group with 1 to 20 carbon atoms; R^{12} and $R^{12'}$ each independently represents a hydrogen atom or a substituent that can substitute the benzene ring; L represents -S- or $-CHR^{13}-$; R^{13} represents a hydrogen atom or an alkyl group with 1 to 20 carbon atoms; and X^1 and $X^{1'}$ each independently represents a hydrogen atom or a group that can substitute the benzene ring;

and wherein the silver halide is silver bromide, silver iodobromide or silver iodide.

2. (currently amended) A ~~photothermographic material~~ black-and-white photothermographic material that forms a black-and-white image by a silver image, the black-and-white photothermographic material comprising, on one

surface of a substrate, photosensitive silver halide grains having a core/shell structure, a non-photosensitive organic silver salt, a reducing agent and a binder, wherein said photosensitive silver halide grains include at least iridium and a metal selected from the group consisting of iron, copper, rhodium and ruthenium, and 90 % or more of a total iridium amount is contained in a core portion of the grain providing that the core portion of the grain corresponds to 30 % of the total mol% of silver halide in the grain, and at least 70 % of a total amount of the ~~other~~ metal selected from the group consisting of iron, copper, rhodium and ruthenium is contained in the shell portion of the grain, wherein the reducing agent is a bisphenol compound represented by the following formula (R)



formula (R)

wherein, in formula (R), R^{11} and $R^{11'}$ each independently represents an alkyl group with 1 to 20 carbon atoms; R^{12} and $R^{12'}$ each independently represents

a hydrogen atom or a substituent that can substitute the benzene ring; L represents -S- or -CHR^{13}-; R^{13} represents a hydrogen atom or an alkyl group with 1 to 20 carbon atoms; and X^1 and $X^{1'}$ each independently represents a hydrogen atom or a group that can substitute the benzene ring;

and wherein the silver halide is silver bromide, silver iodobromide or silver iodide.

3. (currently amended) A photothermographic material according to claim 1, wherein said metal selected from the group consisting of iron, copper, rhodium and ruthenium ~~of groups 3 to 10 of the periodic table other than iridium~~ is iron or ruthenium.

4. (original) A photothermographic material according to claim 1, wherein said photosensitive silver halide grains have an average particle size of 10 to 50 nm.

5. (original) A photothermographic material according to claim 1, wherein an amount of iridium in the silver halide grains is from 1×10^{-8} to 1 x

10^{-2} mol per 1 mol of silver halide.

6. (currently amended) A photothermographic material according to claim 1, wherein an amount of the metal ~~of 3 to 10 of the periodic table other than iridium~~ selected from the group consisting of iron, copper, rhodium and ruthenium in the silver halide grains is from 1 x 10^{-8} to 1 x 10^{-2} mol per 1 mole of silver halide.

7. (original) A photothermographic material according to claim 1, wherein the photosensitive silver halide grains are chemically sensitized by one of a sulfur sensitizing method, a selenium sensitizing method, and a tellurium sensitizing method.

8. (original) A photothermographic material according to claim 1, wherein the photosensitive silver halide grains are gold sensitized.

9. (original) A photothermographic material according to claim 1, wherein the photosensitive silver halide grains are reduction sensitized.

10. (original) A photothermographic material according to claim 1, further comprising a fragmentable electron donating sensitizer (FED sensitizer).

11. (original) A photothermographic material according to claim 1, wherein said photosensitive silver halide grains have a core/shell structure.

12. (original) A photothermographic material according to claim 1, wherein the photosensitive silver halide grains have a core/shell structure of two to five layers.

13. (withdrawn) A method of producing photosensitive silver halide grains to be employed in a photothermographic material including, on a same surface of a substrate, photosensitive silver halide grains, a non-photosensitive organic silver salt, a reducing agent and a binder, wherein the photosensitive silver halide grains include iridium and a metal of groups 3 to 10 of the periodic table other than iridium, and 90 % or more of a total iridium amount is added by the time that an added amount of silver nitrate reaches 30 % of a total amount of

silver nitrate.

14. (withdrawn) A method of producing photosensitive silver halide grains according to claim 13, wherein said metal of groups 3 to 10 of the periodic table other than iridium is selected from the group consisting of ruthenium, iron, osmium, and rhodium.

15. (withdrawn) A method of producing photosensitive silver halide grains according to claim 13, wherein said photosensitive silver halide grains have an average particle size of 10 to 50 nm.

16. (withdrawn) A method of producing photosensitive silver halide grains according to claim 13, wherein a compound of the iridium and a solution thereof are directly added to a reaction vessel for silver halide.

17. (withdrawn) A method of producing photosensitive silver halide grains according to claim 13, wherein a compound of the metal other than iridium and a solution thereof are directly added to a reaction vessel for silver halide.

18. (withdrawn) A method for producing photosensitive silver halide grains according to claim 13, wherein the photosensitive silver halide grains have a core/shell structure.

19. (withdrawn) A method for producing photosensitive silver halide grains according to claim 18, wherein a core portion and a shell portion of the photosensitive silver halide grain are prepared from separate halogen solutions, and a compound of the iridium is added in advance to a halogen solution to be used for forming the core portion.

20. (withdrawn) A method for producing photosensitive silver halide grains according to claim 18, wherein a core portion and a shell portion of the photosensitive silver halide grain are prepared from separate halogen solutions, and the metal of groups 3 to 10 of the periodic table other than iridium is added in advance to a halogen solution to be used for forming the shell portion.